

## CLAIMS

1. A system for representing and incorporating available information into uncertainty-based forecasts comprises:

a model module configured for providing at least one locally mean-reverting-

5 diverting model;

a parameter module configured for providing parameter values of the at least one model; and

a data processing module configured for utilizing the at least one model and the parameter values to create an uncertainty-based forecast.

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2. The system of claim 1 further comprising a data cleanup module configured for refining the available information.

3. The system of claim 1 wherein the model module is further configured for

15 automating the selection of the at least one locally mean-reverting-diverting model utilizing the available information.

4. The system of claim 1 wherein the parameter module is further configured for automating the determination of the parameter values of the at least one locally mean-

20 reverting-diverting model utilizing the available information.

5. The system of claim 1 wherein the available information is directly relevant historical data.

25 6. The system of claim 1 wherein the available information is expert opinion and analysis.

7. The system of claim 1 wherein the available information is both directly relevant historical data and expert opinion and analysis.

5 8. The system of claim 1 further comprising refining the available information prior to selecting the at least one model.

9. The system of claim 1 further comprising refining the available information after generating the uncertainty-based forecast in order to refine the uncertainty-based forecast.

10 10. The system of claim 1 further comprising evaluating characteristics of uncertainty-based forecast that has been generated for accuracy and appropriateness relative to the available information.

11. The system of claim 1 further comprising model and parameter storage.

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12. A method for representing and incorporating available information into uncertainty-based forecast comprising:

receiving the available information;

selecting at least one locally mean-reverting-diverting model;

20 selecting parameter values of the at least one model; and

generating the uncertainty-based forecast.

13. The method of claim 12 wherein the selection of the at least one locally mean-reverting-diverting model is automated utilizing the available information.

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14. The method of claim 12 wherein the determination of the parameter values of the at least one locally mean-reverting-diverting model is automated utilizing the available information.

15. The method of claim 12 wherein the available information is directly relevant historical data.

16. The method of claim 12 wherein the available information is expert opinion and  
5 analysis.

17. The method of claim 12 wherein the available information is both directly relevant historical data and expert opinion and analysis.

10 18. The method of claim 12 further comprising refining the available information prior to selecting the at least one model.

19. The method of claim 12 further comprising refining the available information after generating the uncertainty-based forecast in order to refine the uncertainty-based forecast.

15 20. The method of claim 12 further comprising evaluating characteristics of uncertainty-based forecast that has been generated for accuracy and appropriateness relative to the available information.

20 21. A computer readable medium having embodied thereon a program, the program being executable by a machine to represent and incorporate available information into uncertainty-based forecast comprising:

receiving the available information;

selecting at least one locally mean-reverting-diverting model;

25 selecting parameter values for the at least one model; and

generating the uncertainty-based forecast.

22. The computer readable medium of claim 21 wherein selecting the parameter values further comprises automating the determination of the parameter values of the at least one model utilizing the available information.

5 23. A method for determining the parameter values of the at least one locally mean-reverting-diverting model utilizing available information from expert opinion and analysis comprising:

identifying a form of the available information from expert opinion and analysis;

10 establishing a first set of equations of which parameter values of the at least one locally mean-reverting-diverting model must satisfy using the available information from expert opinion and analysis;

15 establishing a second set of equations of which the parameter values of the at least one locally mean-reverting-diverting model must satisfy using the available information from expert opinion and analysis about conditional distributions of an uncertainty-based forecast; and

determining the parameter values of the at least one locally mean-reverting-diverting model utilizing the first and second set of equations.

20 24. The method of claim 23 wherein establishing the first set of equations further comprises utilizing the available information from expert opinion and analysis about unconditional distributions of the uncertainty-based forecast.

25 25. The method of claim 23 wherein establishing the first set of equations further comprises utilizing the available information from expert opinion and analysis about conditional distributions of the uncertainty-based forecast.

26 A computer readable medium having embodied thereon a program, the program being executable by a machine to determine the parameter values of at least one locally

mean-reverting-diverting model with available information from expert opinion and analysis comprising:

identifying a form of the available information from expert opinion and analysis;

establishing a first set of equations of which parameter values of the at least one

5 locally mean-reverting-diverting model must satisfy using the available information from expert opinion and analysis;

establishing a second set of equations of which the parameter values of the at least one locally mean-reverting-diverting model must satisfy using the available information from expert opinion and analysis about conditional distributions of an uncertainty-based

10 forecast; and

determining the parameter values of the at least one locally mean-reverting-diverting model utilizing the first and second set of equations.